Interdisciplinary Training: Behavior, Environment and Biology

RFA Number: RFA-RM-05-010

Part I Overview Information

Department of Health and Human Services

Participating Organizations
National Institutes of Health (NIH), (http://www.nih.gov)

Components of Participating Organizations

This RFA is developed as an NIH Roadmap initiative (http://nihroadmap.nih.gov). All NIH Institutes and Centers participate in Roadmap initiatives. The RFA will be administered by the National Institute of Mental Health (NIMH), (http://www.nimh.nih.gov) on behalf of the NIH.

Announcement Type
This is a reissue of RFA-RM-04-010 that was previously released November 17, 2003.

Catalog of Federal Domestic Assistance Number(s)
93.282

Key Dates

Release Date: November 19, 2004
Letters Of Intent Receipt Date(s): January 14, 2005
Application Receipt Dates(s): February 11, 2005
Peer Review Date(s): June/July 2005
Council Review Date(s) : September 2005
Earliest Anticipated Start Date: September 29, 2005
Expiration Date: February 12, 2005

Due Dates for E.O. 12372
Not Applicable

Executive Summary

- This postdoctoral, institutional National Research Service Award (NRSA) will support the establishment of innovative programs that provide formal coursework and research training in a new interdisciplinary field to individuals holding advanced degrees in a different discipline. These training programs are required to include a behavioral or social science discipline. The NIH is especially interested in training programs that integrate the behavioral and/or social sciences with the more traditional biomedical sciences.
- It is anticipated that approximately $800,000 in total costs will be awarded.
- Three to five awards are anticipated.
- This RFA will use the Ruth L. Kirschstein NRSA institutional research training grant (T32) mechanism.
- Eligible organizations include domestic, non-profit organizations, public and private, with strong, well-established research and training programs.
- Eligible program directors include established researchers with acknowledged accomplishments in interdisciplinary research and training who are capable of providing both administrative and scientific leadership to the program.
- Each applicant may submit one application.
- The PHS 398 is available at http://grants.nih.gov/grants/funding/phs398/phs398.html in an interactive format.

Telecommunications for the hearing impaired: TTY (301) 451-0088.

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Part II - Full Text of Announcement

Section I. Funding Opportunity Description

1. Research Objectives

The Institutes, Centers and Offices of the National Institutes of Health invite applications for Interdisciplinary Training: Behavior, Environment and Biology. This institutional, postdoctoral National Research Service Award (NRSA) will support the establishment of innovative programs that provide formal coursework and research training in a new interdisciplinary field to individuals holding advanced degrees in a different discipline. These training programs are required to include a behavioral or social science discipline, and we are especially interested in programs that integrate the behavioral and/or social sciences with the more traditional biomedical sciences. We encourage the development of innovative programs that accept postdoctoral trainees with varied research backgrounds, provide multiple tracks of research training that enhance each trainee's development of new, interdisciplinary knowledge and skills, while supporting opportunities for trainee interaction and research integration across the research tracks .

The overall goal of NRSA training programs is to ensure that highly trained scientists will be available in adequate numbers and in appropriate scientific areas to carry out the Nation's biomedical and behavioral health research agenda. Many of our most pressing health problems involve disease processes that are influenced by biological, behavioral, and social environment factors. The purpose of this NRSA program is to help ensure the development of a cadre of scientists with the requisite skills and knowledge to integrate multiple scientific approaches and to work in interdisciplinary research teams to solve these complex health problems.

Program Objectives

The National Institutes of Health (NIH) are engaged in a series of activities collectively known as the ?NIH Roadmap? whose goal, in keeping with the NIH mission of uncovering new knowledge about the prevention, detection, diagnosis, and treatment of disease and disability, is to accelerate both the pace of discovery in these key areas and the translation of therapies from bench to bedside. In the course of developing the NIH Roadmap, it has become clear that scientific advances are increasingly being made at the interfaces of traditional disciplines, and that approaches to science are becoming more integrative. This requires a cooperative effort, typically in the form of investigators from diverse research backgrounds working collectively across traditional disciplinary boundaries to answer scientific questions and achieve specific endpoints. Such advances also require a workforce capable of crossing disciplinary boundaries and leading and participating in integrative and team approaches to complex health problems. Building research teams for the future therefore emerged as one of the major themes in Roadmap implementation. (Additional information about the NIH Roadmap can be found on the NIH web site at http://nihroadmap.nih.gov.)

NIH is particularly interested in developing a new interdisciplinary research workforce. An interdisciplinary approach is distinguished from a multidisciplinary approach in that a multidisciplinary approach brings experts from diverse disciplines to address collectively a common complex problem, each from his or her unique perspective. By contrast, an interdisciplinary approach results from the melding of two or more disciplines to create a new (interdisciplinary) science. Biophysics, biostatistics, bioinformatics, bioengineering, social neuroscience, biodemography, behavioral economics and psychoneuroimmunology are just some examples of existing interdisciplinary sciences. NIH recognizes the value and enormous contributions that existing interdisciplinary approaches have made and are making to our understanding of health, disease, and disability. However, the Roadmap is focused on developing new interdisciplinary approaches and therefore the necessary interdisciplinary workforce.

NIH has implemented a series of initiatives that aim to provide investigators with the training to effectively lead and engage in integrative and team approaches to complex biomedical problems. These initiatives fall into three categories: programs for long-term interdisciplinary research training; short-term courses and research experiences; and curriculum development. Collectively, the initiatives provide opportunities for integration of disciplines at all stages of investigators' careers, facilitate communication among the disciplines, and ensure the development of necessary infrastructure to build research teams for the future. Common features of the proposed initiatives include: comprehensive integrative approaches to solving complex health problems; developing and implementing new curricula that integrate disparate disciplines; activities that promote cohesiveness among training program participants at all levels (faculty-student, student-student, and faculty-faculty); inclusion of training in the personal and professional skills necessary to lead and participate in interdisciplinary teams; outreach to the under-represented minority community to ensure their participation; monitoring of student progress and outcome; and self-evaluation of the training program.

NIH recognizes that multidisciplinary approaches may be a necessary step in the evolution of interdisciplinary research training. Currently the NIH offers many opportunities and mechanisms to support multidisciplinary research training. Thus, for the purposes of the Roadmap's interdisciplinary research training RFAs (including this RFA), activities that facilitate communication among different disciplines, promote but perhaps do not completely achieve integration of different disciplines in the proposed project period, or propose training in multidisciplinary approaches as a precursor to interdisciplinary research training, are

acceptable **only** if they include a detailed plan with appropriate milestones for achieving the Roadmap goal of developing interdisciplinary research training.

Specific Objectives

Numerous reports from the NIH and the National Academies of Science have concluded that researchers will need to integrate multiple disciplinary perspectives, methodologies and levels of analysis in order to advance our understanding of health and disease successfully. Common to these reports is a recommendation to increase interdisciplinary research training (see list of reference reports and associated URLs below).

Interdisciplinary research and training are not new concepts. There are many instances of the integration of disciplines in trying to meet scientific challenges, and of programs that provide interdisciplinary research training. However, what each of the recent reports indicates is lacking, and therefore is needed, is research training that integrates three primary areas of science -- biology, behavior, and the social environment. Examples of research areas that might benefit from such an interdisciplinary approach include, but are not limited to, the following:

- The mechanisms by which interactions between genetics and the environment influence molecular, cellular, and organismal function, thus impacting physiology and health
- Elucidation of the biological mechanisms by which racial, ethnic, socioeconomic and gender inequality affect physiology (at all levels) and thus health outcomes
- The study of mental disorders by approaches that integrate neuroscience, genetics, behavioral science, computational science/modeling, and clinical sciences, using both animal models of these disorders and human populations, to understand the confluence of genetic, biological, behavioral and environmental factors involved in the etiology, treatment and prevention of these disorders
- Cognitive rehabilitation, which can be addressed by merging cognitive neuroscience, physical and occupational therapy, and clinical neurology
- Management of the multiple conditions of senescence: clinical symptoms (cardiovascular, neurological, and endocrine changes; frailty; cancer) in light of age-associated changes in psychological and social factors
- Treatment of drug addition based on the translation of basic behavioral science, and on cognitive, affective and social neuroscience research into novel behavioral therapies
- Understanding the roles of biological, social and psychological factors in the etiology and maintenance of conditions with pain as a primary symptom
- The regulation of energy balance, as determined by genetics, neural and endocrine function, and behavioral, societal and cultural factors
- The influence of social interactions on health and disease

In order to work collaboratively to tackle these complex health-related problems, researchers will need training in the conceptual models and methods of disciplines that address these different areas of influence. Moreover, progress in integrating scientific fields requires quantitative capabilities to link across multiple levels of analysis (molecular, genetic, cellular, physiological, cultural, social, community, population) and improved modeling to allow for prediction of outcomes ? multi-directionally and among all intermediate steps between the molecular and population levels.

For this NRSA, we envision programs that will provide formal coursework and research training in a new discipline for individuals holding advanced degrees in a first field. The postdoctoral trainees and the program faculty are expected to represent multiple disciplines so that the trainees' benefits will accrue not simply from instruction in another field, but from a rich, integrative research environment created by established investigators working collaboratively in an interdisciplinary fashion. One of the program disciplines must be in the behavioral or social sciences. We are especially interested in programs that integrate the behavioral and/or social sciences with more traditional biomedical disciplines (e.g., genetics, molecular biology, cell biology, physiology, immunology, biochemistry, neuroscience, genomics, etc.). A definition of behavioral and social sciences research for the NIH can be found at http://obssr.od.nih.gov/funding/definition.html.

- For example, a program centered on gene-social environment interactions could be designed to accept trainees with backgrounds in genetics, cell and molecular biology, social psychology and computational science. Individuals would receive training in fields different from their own, and the program as a whole would provide opportunities for all trainees to engage in integrative research seminars and broad discussions of gene-environment interactions and health. Individuals would emerge from such a program poised to work collaboratively to model the influence of the social environment on gene expression, cellular function and ultimately, physiology and health.

- A program might train a gerontologist in epidemiology, an epidemiologist in cognitive neuroscience, a cognitive neuroscientist in gerontology, and an economist or demographer in behavior genetics and/or neuroscience, to facilitate the design of epidemiological surveys of the elderly that include measures of age-related changes in brain function and cognition and the impact of changing cognition on decision-making in the areas of health and finance.

- A program focused on the health effects of stress might provide training in the neural and endocrine regulation of the stress response, the interactions between stress and the immune system, and the impact of the social environment on stress and immune system function. Trainees emerging from such a program will be competent to lead an interdisciplinary research team working on the mechanisms by which psychosocial interventions prevent the immunosuppression that often results from chronic stress.

- A program focused on obesity and type II diabetes might train individuals from various disciplinary backgrounds in metabolic endocrinology and energy balance, the genetics of obesity, and the role of psychosocial factors in the development and treatment of obesity and diabetes. Trainees completing such a program would be suited to function in highly interdisciplinary teams to take advantage of the integrated knowledge and approaches from multiple disciplines to develop more effective obesity and diabetes prevention and treatment strategies.

Reference Reports

Institute of Medicine (2000) Bridging the Disciplines in the Brain, Behavioral and Clinical Sciences. Committee on Building Bridges in the Brain, Behavioral and Clinical Sciences. TC Pellmar and L Eisenberg, eds. Division of Neuroscience and Behavioral Health. Washington, DC: National Academy Press, http://books.nap.edu/books/0309070783/html/index.html.

Institute of Medicine (2001) Exploring the Biological Contributions to Human Health: Does Sex Matter? Committee on Understanding the Biology of Sex and Gender Differences. TM Wizemann and M-L Pardue, Eds. Board on Health Sciences Policy. Washington, DC: National Academy Press, http://books.nap.edu/books/0309072816/html/index.html.

Institute of Medicine (2001) Health and Behavior: The Interplay of Biological, Behavioral, and Societal Influences. Committee on Health and Behavior: Research, Practice and Policy, Board on Neuroscience and Behavioral Health. Washington, DC: National Academy Press, http://books.nap.edu/books/0309070309/html/index.html.

National Institute of Mental Health (1999) Bridging Science and Service.

National Institute of Mental Health (2000) Translating Behavioral Science into Action.

National Research Council (2000) Addressing the Nation's Changing Needs for Biomedical and Behavioral Scientists. Committee on National Needs for Biomedical and Behavioral Scientists. Washington, DC: National Academy Press, http://www.nap.edu/books/0309069815/html.

National Research Council (2001) New Horizons in Health: An Integrative Approach. Committee on Future Directions for Behavioral and Social Sciences Research at the National Institutes of Health. BH Singer and CD Ryff, Eds. Commission on Behavioral and Social Sciences and Education. Washington, DC: National Academy Press, http://books.nap.edu/books/0309072964/html/index.html.

National Research Council (1997) Between Zeus and the Salmon: The Biodemography of Longevity. Committee on Population. K.W. Wachter and C.E. Finch, Eds. Commission on Behavioral and Social Sciences and Education. Washington, DC: National Academy Press, http://books.nap.edu/catalog/5740.html.

National Research Council (2001) Cells and Surveys: Should Biological Measures Be Included in Social Science Research? Committee on Population. C.E. Finch, J.W. Vaupel, and K. Kinsella, Eds. Commission on Behavioral and Social Sciences and Education. Washington, DC: National Academy Press, http://books.nap.edu/catalog/9995.html.

Section II. Award Information

1. Mechanism(s) of Support

This funding opportunity will use the Ruth L. Kirschstein National Research Service Award Institutional Training Grant (T32) award mechanism. As an applicant, you will be solely responsible for planning, directing, and executing the proposed project.

This funding opportunity uses just-in-time concepts. It also uses the non-modular budget format described in the PHS 398 application instructions. A detailed categorical budget for the "Initial Budget Period" and the "Entire Proposed Period of Support" is to be submitted with the application.

2. Funds Available

- It is anticipated that approximately $800,000 in total costs will be awarded through this announcement.
- It is anticipated that 3-5 awards will be made.
- The average award is expected to be approximately $175,000 in direct costs.
- Previously the average direct costs per award were approximately $180,000.
- It is anticipated that awards will begin approximately September 29, 2005 and will be for up to five years in duration.

All Institutes, Centers, and Offices of the NIH participate in the NIH Roadmap. The NIH intends to commit approximately $800,000 in total costs in FY 05 to fund 3-5 new grants in response to this RFA. An applicant may request a project period of up to five years.

Because the nature and scope of the proposed research training will vary from application to application, it is anticipated that the size and duration of each award will also vary. Although the financial plans of the IC(s) provide support for this program, awards pursuant to this funding opportunity are contingent upon the availability of funds and the receipt of a sufficient number of meritorious applications. Facilities and administrative costs are not included in the direct cost limitation, see NOT-OD-04-040.

Section III. Eligibility Information

1. Eligible Applicants

1.A. Eligible Institutions

Only domestic, non-profit, public or private institutions/organizations are eligible to apply for institutional NRSA research training grants. Foreign institutions are not eligible to apply.

The applicant institution must have adequate numbers of highly trained faculty researchers in the biomedical, behavioral, social and/or computational sciences. The environment must stimulate and allow for interactions among the involved disciplines and support interdisciplinary research opportunities. Proposals from multiple institutions working collaboratively are encouraged.

1.B. Eligible Individuals

Any individual with the skills, knowledge, and resources necessary to carry out the proposed research is invited to work with their institution to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH programs. The Program Director must be an established researcher with acknowledged accomplishments in interdisciplinary research and training, and be capable of providing both administrative and scientific leadership to the program.

2. Cost Sharing

This program does not require cost sharing as defined in the current NIH Grants Policy Statement at http://grants.nih.gov/grants/policy/nihgps_2003/nihgps_Part2.htm#matching_or_cost_sharing.

3. Other-Special Eligibility Criteria

Trainees:

Individuals selected to participate in these training programs must be citizens or non-citizen nationals of the United States, or have been lawfully admitted to the United States for permanent residence and have in their possession an Alien Registration Receipt Card (I-151 or I-551) or other legal verification of admission for permanent residence at the time of appointment to the training program. Non-citizen nationals are persons born in lands that are not States but are under U.S. sovereignty, jurisdiction, or administration (e.g., American Samoa). Individuals on temporary or student visas are not eligible for NRSA support.

Postdoctoral trainees must have received, as of the beginning date of the NRSA appointment, a Ph.D., M.D., D.D.S., or comparable doctoral degree from an accredited domestic or foreign institution. Other eligible doctoral degrees include, but are not limited to, the following: D.M.D., D.C., D.O., D.V.M., O.D., Dr.P.H., D.S.W., D.P.M., Sc.D., D.Eng., Pharm.D., Psy.D., D.N.Sc., or N.D. (Doctor of Naturopathy).

Individuals currently supported by other Federal funds are not eligible for trainee support from these programs at the same time. Further, NRSA traineeships are not given for study leading to a M.D., D.O., D.D.S., or other similar professional clinical degree, or master's clinical degree.

Trainees may not accept NRSA support for studies that are part of residency training leading to clinical certification in a medical specialty or subspecialty. However, funds provided by this award may be used to support full or partial completion of a Master's degree or certificate program in a health-related research field (e.g., M.S., M.P.H.). Additional information may be obtained in the NRSA Guidelines at: http://grants.nih.gov/grants/policy/nihgps_2003/NIHGPS_Part10.htm#_Toc54600187.

Section IV. Application and Submission Information

1. Address to Request Application Information

The PHS 398 application instructions are available at http://grants.nih.gov/grants/funding/phs398/phs398.html in an interactive format. For further assistance contact GrantsInfo, Telephone (301) 435-0714, Email: GrantsInfo@nih.gov.

Telecommunications for the hearing impaired: TTY (301) 451-0088.

2. Content and Form of Application Submission

Applications must be prepared using the PHS 398 research grant application instructions and forms (9/2004). Applications must have a Dun and Bradstreet (D&B) Data Universal Numbering System (DUNS) number as the universal identifier when applying for Federal grants or cooperative agreements. The D&B number can be obtained by calling (866) 705-5711 or through the web site at http://www.dnb.com. The D&B number should be entered on line 11 of the face page of the PHS 398 form.

See Section VI.2 Administrative Requirements for additional information.

The title and number of this funding opportunity must be typed on line 2 of the face page of the application form and the YES box must be checked.

Special Program Requirements, Allowable Costs and Related Information

Trainee Appointments: Trainees are customarily appointed for full-time, 12-month continuous periods. No appointment for less than 12 months may be made without prior approval of the NIH program staff. All trainees are required to pursue their research training on a full-time basis, at a minimum of 40 hours per week. The amount of the stipend and tuition (defined for the purposes of NRSA as the cumulative amount of tuition, all fees, and health insurance) for each full appointment period must be obligated from funds available at the time the individual begins training. See http://grants.nih.gov/grants/guide/notice-files/not96-020.html for additional details on allowable stipend/tuition fees.

Trainees may use some of their time in course studies and clinical duties if such work is closely related to, and an integral part of, the research training experience.

By law, an individual trainee may receive no more than three years of NRSA support in the aggregate at the postdoctoral level. Exceptions to this limitation require a waiver from the director of the funding institute based on a review of the justification provided by the awardee, and must be submitted for prior written approval.

Recruitment: The primary objective of the NRSA program is to prepare qualified individuals for careers that have a significant impact on the Nation's research agenda. Within the framework of the program's longstanding commitment to excellence and projected need for investigators in particular areas of research, attention must be given to recruiting individuals from racial or ethnic groups underrepresented in the biomedical and behavioral sciences. The following groups have been identified as underrepresented in biomedical and behavioral research nationally: African Americans, Hispanic Americans, Native Americans, Alaskan Natives, and Pacific Islanders. Use of the term "minority" in this announcement will refer to these groups.

Duration of training and the transition of trainees to individual support mechanisms: Studies have shown that the length of the appointment to a training grant for postdoctoral trainees with health-professional degrees strongly correlates with subsequent application for and receipt of independent NIH research support. Training grant Program Directors, therefore, should limit appointments to individuals who are committed to a career in research and plan to remain on the training grant or in a non-NRSA research experience for a cumulative minimum of two years. It has also been shown that transition to independent support is related to career success. Therefore, Program Directors should encourage postdoctoral trainees to apply for individual NRSA postdoctoral fellowships (F32) or mentored career development awards (K awards). During the review of training grant applications, peer reviewers will examine the training record to determine the average duration of training appointments for health-professional postdoctoral trainees and whether there is a record of transition to individual support mechanisms.

Past studies have shown that health professional trainees, who train in combined programs with postdoctoral researchers who have an intensive research background, are more likely to apply for and receive research grant support. Programs located in clinical departments that focus on research training for individuals with the M.D. or other health-professional degrees should consider developing ties to basic science departments or modifying their program to include individuals with research doctorates when this approach is consistent with the goals of the program. Applications should describe the basic science department's contribution to the research training experience and also indicate whether both health professional trainees and trainees with research doctorates will be included in the training program.

Evaluation: Program Directors are encouraged to develop methods for ongoing evaluation of the quality of the training program. Although the T32 application process requires extensive career tracking information, it is often useful to obtain more proximal feedback from trainees. For example, Program Directors are encouraged to develop plans to obtain feedback from current and former trainees to help identify weaknesses in the training program and to provide suggestions for program improvements.

Annual Meeting: Program Directors are required to attend an annual, 1-day meeting with other Program Directors and NIH staff in the Washington, DC area. Funds to cover the costs of travel to this meeting should be requested in the budget under Training-Related Expenses.

Allowable Costs

Annual Stipends: The annual stipend for postdoctoral trainees is dependent on the number of full years of relevant experience at the time of the initial appointment. Stipends must be paid to all trainees at the level approved by the Secretary of the DHHS. Stipend levels are adjusted periodically. Current stipend levels are available on the NIH website at: http://grants.nih.gov/training/nrsa.htm. The total stipend must be based on a 12-month appointment. The institution may supplement, from non-Federal sources only, the NIH stipend up to a level that is consistent with the institution's scale. The total stipend must be consistent with the level of effort, with the established stipend structure at the institution, and with stipends actually provided by the institution, from its own funds, to other staff members with equivalent qualifications, rank, and responsibilities in the same department.

The stipend is provided as a subsistence allowance for trainees to help defray living expenses during the research training experience. The stipend is not a payment for services performed. Trainees are not considered to be employees of the PHS or their sponsoring organization.

Taxability of Stipends: Internal Revenue Code Section 117 applies to the tax treatment of all scholarships and fellowships. The Tax Reform Act of 1986, Public Law 99-514, impacts on the tax liability of all individuals supported under the NRSA program. Under that section, non-degree candidates are now required to report as gross income all stipends and any monies paid on their behalf for course tuition and fees required for attendance.

The taxability of stipends, however, in no way alters the relationship between NRSA trainees and institutions. NRSA stipends are not considered salaries. In addition, trainees supported under the NRSA are not considered to be in an employer-employee relationship with NIH or the institution in which they are pursuing research training. Therefore, it is inappropriate and unallowable for institutions to seek funds for or to charge institutional research training grant awards for costs that would normally be associated with employee benefits (e.g., FICA, workman's compensation, and unemployment insurance).

It must be emphasized that the interpretation and implementation of the tax laws are the domain of the Internal Revenue Service (IRS) and the courts. PHS takes no position on what the status may be for a particular taxpayer, and it does not have the

authority to dispense advice to trainees or institutions about their tax liability. Individuals should consult their local IRS office about the applicability of the law to their situation and for information on their tax obligations.

Tuition: Applicant organizations can request funds for tuition. For the purposes of this RFA, tuition is defined as the combined costs of tuition, fees and applicable health insurance. Such costs will be provided according to existing NIH policies on Ruth L. Kirschstein Research Training Opportunities - National Research Service Award Research Training Grants and Fellowships, at the following web site: http://grants.nih.gov/training/nrsa.htm. For postdoctoral trainees, tuition is limited to that required for specific courses in support of the approved training program. If tuition is requested for the postdoctoral trainees, the specific courses to be taken should be listed and appropriately justified in the Budget Justification.

Travel: Applicants may also request funds for certain types of training-related travel for trainees (e.g., to attend professional meetings and other meetings directly related to their training). Annual levels are anticipated to be up to $1,000 per postdoctoral trainee. In addition, support for travel to a research training experience away from the institution may be permitted.

Research training experiences away from the parent institution must be justified considering the type of opportunities for training available, the manner in which these opportunities differ from and complement those offered at the parent institution, and the relationship of the proposed experience to the trainee's career stage and goals. This type of research training requires prior approval from the NIH. Letters requesting such training may be submitted to the NIH awarding component at any time during the award period. Under exceptional circumstances, which can include providing accommodations for a trainee with disabilities, it is possible to request institutional costs above the standard rate. Requests for additional trainee costs must be explained in detail and carefully justified in the application. Consultation with NIH program staff in advance of such requests is strongly advised.

Training-Related Expenses: The applicant organization may also request funds for other Training-Related Expenses (TRE) such as personnel directing the program, consultants, project-specific supplies, travel, reproduction and printing costs, rental equipment, minor equipment items, and other items that are directly related to the recruitment, selection, placement, monitoring and retention of the trainees. Funds for such other training-related expenses are intended to provide the applicant with only partial support for the costs of the proposed research training and for meeting the costs of the trainees' research projects. Ordinarily, under NRSA awards, up to $3,850 per postdoctoral trainee is provided on an annual basis for the other training-related expenses that are deemed essential to carry out the training program for the NRSA awardees appointed under the grant.

However, for the purpose of this RFA, the Training-Related Expenses may exceed $3,850 per trainee by allowing up to five percent of the Program Director's base salary (to the NIH annual base salary cap, currently $175,700) plus fringe benefits, per year, plus up to $5,000 annually for administrative costs associated specifically with the interdisciplinary nature of the proposed training program. If there are Program Co-Directors, five percent of their salary, in the aggregate, plus fringe benefits is allowed per year. Additionally, as noted above, funds to support travel of the Program Director to the annual meeting in the Washington, DC area should be requested in the TRE category. All budget items in the TRE category must be explained in detail and be fully justified at the level requested. The actual salary and fringe benefit rate for the Program Director (and Co-Directors, if any) should be provided. The type and amount of fiscal or in-kind costs to be contributed by the grantee organization should be identified and discussed in detail.

Grantees are expected to be familiar with and comply with applicable cost policies and the NRSA Guidelines. Funds may be used only for those expenses that are directly related and necessary to the research training not otherwise available and must be expended in conformance with DHHS Cost Principles, the NIH Grants Policy Statement (rev. 12/01/2003), the NRSA regulations and guidelines, and conditions set forth in this document.

Facilities and Administrative (F&A) Costs: These costs are limited to 8 percent of allowable direct costs (excludes all tuition costs, including health insurance, and equipment).

Stipend Supplementation, Compensation, and Other Income

The grantee institution is allowed to provide funds to an individual in addition to the stipends paid by the NIH. Such additional amounts either may be in the form of augmented stipends (supplementation) or in the form of compensation, such as salary or tuition remission for services such as teaching or serving as a laboratory assistant, provided the conditions described below are met. Under no circumstances may the conditions of stipend supplementation or the services provided for compensation interfere with, detract from, or prolong the trainee's approved NRSA training program.

Stipend Supplementation: Supplementation or additional support to offset the cost of living may be provided by the grantee institution. Supplementation does not require additional effort from the trainee. DHHS funds may not be used for supplementation under any circumstances. Additionally, no funds from other Federal agencies may be used for supplementation unless specifically authorized by the NIH and the other Federal agency.

Compensation: An institution may provide additional funds to a trainee in the form of compensation (as salary and/or tuition remission) for services such as teaching or serving as a research assistant. A trainee may receive compensation for services as a research assistant or in some other position on a Federal research grant, including a DHHS research grant. However, compensated services should occur on a limited, part-time basis apart from the normal research training activities, which require a minimum of 40 hours per week. In addition, compensation may not be paid from a research grant that supports the same research that is part of the trainee's planned training experience as approved in the institutional training grant application.

Educational Loans or G.I. Bill: An individual may make use of Federal educational loan funds and assistance under the Veterans Readjustment Benefits Act (G.I. Bill). Such funds are not considered supplementation or compensation. Postdoctoral trainees in their first and third years of training may also be eligible to participate in the NIH Extramural Loan Repayment Program.

Concurrent Awards: An NRSA may not be held concurrently with another federally sponsored fellowship or similar Federal award that provides a stipend or otherwise duplicates provisions of the NRSA.

Leave Policies

In general, trainees may receive stipends during the normal periods of vacation and holidays observed by individuals in comparable training positions at the sponsoring institution. For the purpose of these awards, however, the period between the spring and fall semesters is considered to be an active time of research and research training and is not considered to be a vacation or holiday. Trainees may receive stipends for up to 15 calendar days of sick leave per year. Sick leave may be used for the medical conditions related to pregnancy and childbirth. Trainees may also receive stipends for up to 30 calendar days of parental leave per year for the adoption or the birth of a child when those in comparable training positions at the grantee institution have access to paid leave for this purpose and the use of parental leave is approved by the program director. A period of terminal leave is not permitted, and payment may not be made from traineeship funds for leave not taken. Trainees requiring periods of time away from their research training experience longer than specified here must seek approval from the NIH awarding component for an unpaid leave of absence. Trainees supported by academic institutions should refer to the NIH Institutional NRSA training grant guidelines at: http://grants.nih.gov/grants/guide/pa-files/PA-02-109.html for further guidance regarding vacations and requested leave.

Other important information items regarding terms and conditions are located in the NRSA Guidelines found within the NIH Grants Policy Statement (http://grants.nih.gov/grants/policy/nihgps_2003/NIHGPS_Part10.htm#_Toc54600187).

3. Submission Dates

Applications must be mailed on or before the receipt date described below (Section IV.3.A.).

3.A. Receipt, Review and Anticipated Start Dates

Letter of Intent Receipt Date: January 14, 2005
Application Receipt Date(s): February 11, 2005
Peer Review Date: June/July 2005
Council Review Date: September 2005
Earliest Anticipated Start Date: September 29, 2005

3.A.1. Letter of Intent

Prospective applicants are asked to submit a letter of intent that includes the following information:

- Descriptive title of proposed research training
- Name, address, and telephone number of the Program Director
- Names of other key personnel
- Participating institutions
- Number and title of this funding opportunity

Although a letter of intent is not required, is not binding, and does not enter into the review of a subsequent application, the information that it contains allows IC staff to estimate the potential review workload and plan the review.

The letter of intent is to be sent by the date listed at the beginning of this document.

The letter of intent should be sent to:

Nancy L Desmond, Ph.D.
Division of Neuroscience and Basic Behavioral Science
National Institute of Mental Health
6001 Executive Blvd.
Room 7197, MSC 9645
Bethesda, MD 20892-9645 (Rockville, MD 20852 for express/courier service)
Telephone: (301) 443-3563
FAX: (301) 443-1731
Email: ndesmond@nih.gov

3.B. Sending an Application to the NIH

Applications must be prepared using the PHS 398 research grant application instructions and forms as described above. Submit a signed, typewritten original of the application, including the checklist, and three signed photocopies in one package to:

Center for Scientific Review
National Institutes of Health
6701 Rockledge Drive, Room 1040, MSC 7710
Bethesda, MD 20892-7710 (U.S. Postal Service Express or regular mail)
Bethesda, MD 20817 (for express/courier service; non-USPS service)

At the time of submission, two additional copies of the application and all copies of the appendix material must be sent to:

Jean G. Noronha, Ph.D.
Division of Extramural Activities
National Institute of Mental Health
6001 Executive Blvd.
Room 6147, MSC 9609
Bethesda, MD 20892-9609 (Rockville, MD 20852 for express/courier service)
Telephone: (301) 443-3367
FAX: (301) 443-4720
Email: jnoronha@mail.nih.gov

Using the RFA Label: The RFA label available in the PHS 398 application instructions must be affixed to the bottom of the face page of the application. Type the RFA number on the label. Failure to use this label could result in delayed processing of the application such that it may not reach the review committee in time for review. In addition, the RFA title and number must be typed on line 2 of the face page of the application form and the YES box must be marked. The RFA label is also available at: http://grants.nih.gov/grants/funding/phs398/labels.pdf.

3.C. Application Processing

Applications must be received **on or before the application receipt date** listed in the heading of this funding opportunity. If an application is received after that date, it will be returned to the applicant without review. Applications will be evaluated for completeness by CSR.

The NIH will not accept any application in response to this funding opportunity that is essentially the same as one currently pending initial review, unless the applicant withdraws the pending application. However, when a previously unfunded application, originally submitted as an investigator-initiated application, is to be submitted in response to a funding opportunity, it is to be prepared as a NEW application. That is, the application for the funding opportunity must not include an Introduction describing the changes and improvements made, and the text must not be marked to indicate the changes from the previous unfunded version of the application.

Upon receipt, applications will be reviewed for completeness by the CSR and responsiveness by the Roadmap Interdisciplinary Research Teams Project Team . Incomplete applications will not be reviewed.

Although there is no immediate acknowledgement of the receipt of an application, applicants are generally notified of the review and funding assignment within eight (8) weeks.

4. Intergovernmental Review

This initiative is not subject to intergovernmental review.

5. Funding Restrictions

Because the nature and scope of proposed programs may vary, it is anticipated that the size of each award will vary. Awards pursuant to this RFA are contingent upon the availability of funds and the receipt of a sufficient number of applications of outstanding scientific and technical merit. Furthermore, the duration of the award and the number of funded training positions may be less than the levels recommended by the peer review group, based on programmatic and budgetary considerations. Funds for continuation beyond the initial year are determined by the success as described in the annual progress report, the timely submission of all required forms, and the availability of funds.

All awards are subject to the terms and conditions, cost principles, and other considerations described in the NIH Grants Policy Statement. The Grants Policy Statement can be found at http://grants.nih.gov/grants/policy/policy.htm (see also Section VI.3. Award Criteria).

6. Other Submission Requirements

The following information should be provided IN ADDITION to that specified in the PHS 398 instructions for institutional National Research Service Awards.

Background: Provide a rationale and overall conceptual framework for the interdisciplinary research training program. Indicate how the proposed program is innovative and distinct from, yet integrated with existing training programs. Describe how training in behavioral or social science disciplines might be integrated with biomedical science training (if applicable).

Program Direction: Describe the Program Director's accomplishments and leadership in interdisciplinary research and training. Describe the administrative structures that allow and encourage interdisciplinary and/or cross-departmental research opportunities and how these will affect training opportunities for the trainees.

Program Faculty: Describe each faculty member's interdisciplinary research accomplishments and interdisciplinary training experience. Describe the extent to which participating faculty members cooperate and collaborate in pursuing interdisciplinary research relevant to the program. Inclusion of investigators from the behavioral or social sciences is required. A definition of behavioral and social sciences research for the NIH can be found at http://obssr.od.nih.gov/funding/definition.html.

Proposed Training: Describe the proposed interdisciplinary training program. Describe the course work and research experiences. For programs with multiple tracks, provide course work and research experiences for each track, as well as opportunities and experiences for trainee interaction and research integration that span the whole program. Describe formal endpoint(s), if any, to be achieved by the trainees (e.g., Master's degree, certificate). Provide the proposed distribution of trainees by original discipline (e.g., genetics, biochemistry, physiology, cell biology, molecular biology, psychology, sociology, epidemiology, mathematics). Describe plans for provision of training in the personal and professional skills necessary to lead and participate in interdisciplinary teams.

NIH Roadmap Goal: For programs that facilitate communication among different disciplines, promote but perhaps do not completely achieve integration of different disciplines in the proposed project period, or propose training in multidisciplinary approaches as a precursor to interdisciplinary research training, include a detailed plan with appropriate milestones for achieving the NIH Roadmap goal of developing interdisciplinary research training.

Program Evaluation: Provide plans for monitoring trainee progress and overall program evaluation. Describe the measures (e.g., publications, grant proposals and awards, career trajectory of trainees) that will be used to assess the success or failure of the program. Include in the evaluation plan an assessment of the program's impact on the culture for doing interdisciplinary research at the participating institution(s). Input for evaluating the program should be obtained from faculty and trainees.

Institutional Support: Describe support (financial or otherwise) that the institution(s) will provide for the proposed training program. This could include, for example, space, shared laboratory facilities and equipment, funds for curriculum development, release time for the Program Director or participating faculty, support for additional trainees in the program, or any other creative mechanisms to improve the climate for the establishment and growth of the training program.

Trainee Recruitment: The NIH remains committed to increasing the participation of individuals from underrepresented minority groups in biomedical and behavioral research. As first announced in 1989, all competing applications for institutional NRSA research training grants must include a specific plan to recruit and retain underrepresented minorities in the training program (see http://grants.nih.gov/grants/guide/notice-files/not93-188.html).

Plan for Sharing Research Data
Not applicable.

Sharing Research Resources
Not applicable.

Section V. Application Review Information

1. Criteria

Only the criteria described below will be considered in the review process.

2. Review and Selection Process

Upon receipt, applications will be reviewed for completeness by the CSR and responsiveness by the Roadmap Interdisciplinary Research Teams Project Team . Incomplete applications will not be reviewed.

Applications that are complete and responsive to the RFA will be evaluated for scientific and technical merit by an appropriate peer review group convened by NIMH in accordance with the review criteria stated below.

As part of the initial merit review, all applications will:

- Undergo a selection process in which only those applications deemed to have the highest scientific merit, generally the top half of applications under review, will be discussed and assigned a priority score.
- Receive a written critique
- Receive a second level of review by the National Advisory Mental Health Council

3. Merit Review Criteria

In the written comments, reviewers will be asked to discuss the following aspects of the application in order to judge the likelihood that the proposed research will have a substantial impact on the pursuit of these goals. The scientific review group will address and consider each of these criteria in assigning the application's overall score, weighting them as appropriate for each application.

Major considerations in the review are the breadth, depth, and quality of the plan for implementing the interdisciplinary training program; qualifications, capability, and experience of the Program Director, faculty and participating institution(s) to implement the plan; plans for recruiting, selecting, and monitoring trainee progress; and adequacy of the facilities and resources. Detailed review criteria are listed below.

Background

- Clarity of the program's objectives, rationale, and overall conceptual framework
- Adequacy in meeting the RFA's intent to prepare candidates who can design and implement research that integrates research in behavioral or social science disciplines with research in other health or biomedical disciplines
- Evidence of institutional commitment to training and development of independent researchers
- Evidence that the proposed program is innovative and distinct, yet integrated with other training programs at the institution, such as K30 or T32 programs

Program Direction

- Qualifications of the Program Director to lead the interdisciplinary research and training program, including his/her scientific and research training record, as determined by the success of former trainees in seeking further career development and in establishing productive scientific careers. Evidence of further career development can include receipt of fellowships or career awards, subsequent training appointments, and similar accomplishments. Evidence of a productive scientific career can include a record of successful competition for research grants, receipt of special honors or awards, a record of publications, receipt of patents, promotion to scientific positions, and any other measure of success consistent with the nature and duration of the training received.

- Appropriateness of the Program Director's time devoted to administering the program
- Adequacy of the administrative structures that allow and encourage interdisciplinary, cross-departmental and/or cross-institutional (if applicable) research and training opportunities

Program Faculty

- Evidence of an interdisciplinary program faculty and their involvement in teaching and research activities (programs are required to include a behavioral or social science discipline)
- Evidence of the availability and commitment of faculty mentors now and for the duration of the program
- Quality of the training faculty in interdisciplinary research relevant to the program, as evidenced by, for example, publications, scientific accomplishments, experience in conducting funded interdisciplinary research, and success in placing former trainees in interdisciplinary research positions
- Quality of mentoring as indicated by the faculty training record (see explanation of training record under ?Program Direction? above)
- Evidence of cooperation and collaboration among program faculty in pursuing interdisciplinary research and training relevant to the program

Proposed Training

- Adequacy of the nature and duration of proposed course work and research experiences for each research training track
- Adequacy of the proposed research training tracks given program faculty expertise and size
- Adequacy of the proposed plans for interdisciplinary research seminars and experiences that allow for trainee interaction and research integration across the whole program
- Adequacy of the proposed number and distribution of trainees by degree and original discipline
- Quality of plans to monitor progress of the trainees, of the program as a whole, and of the program's impact on the culture for performance of interdisciplinary research at the participating institution(s)
- Adequacy of training in the personal and professional skills necessary to lead and participate in multidisciplinary teams
- Adequacy of specific plan to track progress toward achievement of the NIH Roadmap goal of developing interdisciplinary research training

Recruitment, Selection, and Retention of Trainees

- Adequacy of the plans for recruiting qualified trainees from on-site programs, as well as strategies for recruiting regionally and/or nationally
- Adequacy of the criteria and administrative procedures for selecting qualified trainees
- Adequacy of plans for recruiting and retaining trainees from underrepresented minority groups. This assessment will include consideration of the racial and ethnic diversity of the trainee pool.
- If appropriate, record of the research training program in retaining health-professional postdoctoral trainees for at least two years in research training or other research activities
- When appropriate, the concomitant research training of health-professional postdoctorates (i.e., individuals with an M.D., D.O., D.D.S., etc.) with basic science postdoctorates (i.e., individuals with a Ph.D., etc.) or linkages with basic science departments

Facilities And Resources

- Availability of facilities and resources for supporting and conducting interdisciplinary research and training
- Extent of institutional support for trainees and the program

3.A. Additional Review Criteria

In addition to the above criteria, the following items will be considered in the determination of scientific merit and the priority score:

Protection of Human Subjects from Research Risk: The involvement of human subjects and protections from research risk relating to their participation in the proposed research will be assessed (see the Research Plan, Section E on Human Subjects in the PHS Form 398).

Inclusion of Women, Minorities and Children in Research: The adequacy of plans to include subjects from both genders, all racial and ethnic groups (and subgroups), and children as appropriate for the scientific goals of the research will be assessed.

Plans for the recruitment and retention of subjects will also be evaluated (see the Research Plan, Section E on Human Subjects in the PHS Form 398).

Care and Use of Vertebrate Animals in Research: If vertebrate animals are to be used in the project, the five items described under Section F of the PHS 398 research grant application instructions will be assessed.

3.B. Additional Review Considerations

Budget: The reasonableness of the proposed budget and the requested period of support in relation to the proposed research. The priority score should not be affected by the evaluation of the budget.

The appropriateness and justification for all items in the proposed budget should be considered. Training-related expenses in excess of the NRSA standard $3,850 per postdoctoral trainee [to support up to five percent of the Program Director's salary (plus fringe benefits) and/or up to $5000 in administrative costs associated with the interdisciplinary nature of the training program] should be clearly justified.

Training In The Responsible Conduct Of Research: Every NRSA trainee supported by an institutional research training grant must receive instruction in the responsible conduct of research (see http://grants.nih.gov/grants/guide/notice-files/not92-236.html.) Applications must describe a program to provide formal or informal instruction in scientific integrity or the responsible conduct of research. Applications without plans for instruction in the responsible conduct of research will be considered incomplete and will be returned to the applicant without review.

- Although the NIH does not establish specific curricula or formal requirements, all programs are encouraged to consider instruction in the following areas: conflict of interest, responsible authorship, policies for handling misconduct, data management, data sharing, and policies regarding the use of human and animal subjects. Within the context of training in scientific integrity, it is also beneficial to discuss the relationship and the specific responsibilities of the institution and the postdoctorates appointed to the program.
- Plans must address the subject matter of the instruction, the format of the instruction, the degree of training faculty participation, trainee attendance, and the frequency of instruction.
- The rationale for the proposed plan of instruction must be provided.
- Program reports on the type of instruction provided, topics covered, and other relevant information, such as attendance by trainees and faculty participation, must be included in future progress reports. The NIH encourages institutions to provide instruction in the responsible conduct of research to all graduate students, postdoctorates and research staff regardless of their source of support.

NIH initial review groups will assess the applicant's plans on the basis of the appropriateness of topics, format, amount and nature of faculty participation, and the frequency and duration of instruction. The plan will be discussed after the overall determination of merit, so that the review panel's evaluation of the plan will not be a factor in the determination of the priority score. The plan will be judged as acceptable or unacceptable. The acceptability of the plan will be described in an administrative note of the summary statement. Regardless of the priority score, applications with unacceptable plans will not be funded until the applicant provides a revised acceptable plan. Staff in the NIH awarding component will judge the acceptability of the revised plan.

Minority Recruitment and Retention Plan: All competing applications for institutional NRSA research training grants must include a specific plan to recruit and retain underrepresented minorities in the training program (see http://grants.nih.gov/grants/guide/notice-files/not93-188.html). The success of efforts to recruit and retain minority trainees is a factor in the assessment of the quality of the trainee pool and thus will be included in the priority score. In addition, peer reviewers will separately evaluate the minority recruitment and retention plan after the overall determination of merit. Here reviewers will assess the strategies to be used in the recruitment and retention of minorities.

The plan for recruitment and retention of candidates from underrepresented minority groups will be discussed after the overall determination of merit, so that the review panel's evaluation of this plan will not be a factor in the determination of the priority score. The plan will be judged as acceptable or unacceptable. The acceptability of the plan will be described in an administrative note in the summary statement. Regardless of the priority score, applications with an unacceptable plan will not be funded until the applicant provides an acceptable revised plan. Staff in the NIH awarding component will judge the acceptability of the revised plan.

3.C. Sharing Research Data
Not applicable.

3.D. Sharing Research Resources
Not applicable.

Section VI. Award Administration Information

1. Award Notices

After the peer review of the application is completed, the Principal Investigator will also receive a written critique called a Summary Statement.

If the application is under consideration for funding, NIH will request "just-in-time" information from the applicant. For details, applicants may refer to the NIH Grants Policy Statement Part II: Terms and Conditions of NIH Grant Awards, Subpart A: General http://grants.nih.gov/grants/policy/nihgps_2003/NIHGPS_part4.htm.

A formal notification in the form of a Notice of Grant Award (NGA) will be transmitted electronically to the applicant organization. The notice of award signed by the grants management officer is the authorizing document.

Selection of an application for award is not an authorization to begin performance. Any costs incurred before receipt of the NGA are at the recipient's risk. These costs may be reimbursed only to the extent considered allowable pre-award costs.

2. Administrative Requirements

All NIH Grant and cooperative agreement awards include the NIH Grants Policy Statement as part of the notice of grant award. For these terms of award, see the NIH Grants Policy Statement Part II: Terms and Conditions of NIH Grant Awards, Subpart A: General http://grants.nih.gov/grants/policy/nihgps_2003/NIHGPS_Part4.htm and Part II Terms and Conditions of NIH Grant Awards, Subpart B: Terms and Conditions for Specific Types of Grants, Grantees, and Activities http://grants.nih.gov/grants/policy/nihgps_2003/NIHGPS_part9.htm.

The following Terms and Conditions will be incorporated into the award statement and will be provided to the Principal Investigator, as well as to the appropriate institutional official, at the time of award.

Institutional training grants must be administered in accordance with the current NRSA section of the Grants Policy Statement at http://grants.nih.gov/grants/policy/nihgps_2003/NIHGPS_Part7.htm#_Toc54600131, and any terms and conditions specified on the award notice.

Special Administrative Requirements:

- **Carryover of unobligated balances:** The carryover of funds from one budget period to the next requires prior written approval by the NIH funding component.
- **Termination of award:** When a grantee institution plans to terminate an award, the NIH funding component must be notified in writing as soon as possible.
- **Change of institution:** The training program may not be transferred from one institution to another. Trainees seeking to change institutions must terminate their current appointment using the Termination Notice (form PHS 416-7), located at http://grants.nih.gov/grants/forms.htm#training.
- **Change of training Program Director:** If change of a training Program Director (TPD) is necessary, support of the award is not automatic but may be continued with prior written approval by the NIH funding component, provided that the following conditions are met. The current TPD or the awardee institution has submitted a written request for the change, countersigned by the appropriate institutional business official, to program staff at the NIH funding component describing the reasons for the change. The Biographical Sketch of the proposed TPD, including a complete listing of active research grant support, must be provided. The information in the request must establish that the specific aims of the original peer-reviewed program will remain unchanged under the direction of the new TPD and that the new TPD has the appropriate research and administrative expertise to lead the training program. This request must be submitted sufficiently in advance of the requested effective date to allow the necessary time for review.
- **Change of program:** Awards are made to a specific institution for a specific program under the guidance and leadership of a particular TPD. A change in any of these parameters requires prior approval by program staff of the NIH funding component. A rationale must be provided for any proposed changes in the aims of the original, peer-reviewed program. Programmatic changes will be evaluated by the Roadmap Interdisciplinary Research Teams Project Team to ensure that the program remains within the scope of the original, peer-reviewed application. If the new program does not satisfy this requirement, the award will be terminated.

3. Award Criteria

The following will be considered in making funding decisions:

- Scientific merit of the proposed project as determined by peer review
- Availability of funds
- Relevance of program priorities

4. Reporting

Awardees will be required to submit the PHS Non-Competing Grant Progress Report, Form 2590 annually: http://grants.nih.gov/grants/funding/2590/2590.htm and financial statements as required in the NIH Grants Policy Statement.

The NRSA instructions for the non-competing grant progress report (Form 2590) should be followed. The non-competing budget page should list the names and levels of those trainees who are continuing in the research training program. Information on each trainee should also be included in the narrative portion of the progress report as described in the PHS Form 2590 instructions. This NRSA program is not subject to SNAP.

Trainee Reporting Requirements:

The institution must submit a completed Statement of Appointment (PHS Form 2271) for each trainee appointed or reappointed to the training grant. This Form must be completed at the beginning of the initial appointment and annually thereafter. Additionally, a completed Payback Agreement Form (PHS 6031) must be submitted for each postdoctoral trainee in his or her first 12 months of support. No funds may be provided until such documents are submitted and accepted by the funding Institute. Within 30 days of the end of the total support period for each trainee, the institution must submit a Termination Notice (PHS 416-7) to the NIH. If the trainee has a payback obligation, he or she must notify the NIH of any change in address and submit Annual Payback Activities Certification Forms (PHS 6031-1) until the payback service obligation is satisfied. Failure to submit the required forms in a timely, complete, and accurate manner may result in an expenditure disallowance or a delay in any continuation funding for the award. Forms may be found on the NIH Website at http://grants.nih.gov/grants/forms.htm.

Service Payback Provisions:

As specified in the NIH Revitalization Act of 1993, Kirschstein-NRSA recipients incur a service payback obligation only during the first 12 months of postdoctoral support. Additionally, the Act specifies that the second and subsequent years of postdoctoral Kirschstein-NRSA training will serve to pay back a postdoctoral service payback obligation. Accordingly, the following guidelines apply:

- Postdoctoral trainees in the first 12 months of postdoctoral Kirschstein-NRSA support must sign the Payback Agreement Form (PHS 6031) before initiating an appointment. Postdoctoral trainees in their first 12 months of support will incur a period of service payback obligation equal to the period of support.
- Postdoctoral trainees in the 13 th and subsequent months of NRSA postdoctoral support are not required to sign the payment agreement form and will not incur a service payback obligation for this period of support. In addition, the 13 th and subsequent months of postdoctoral Kirschstein-NRSA support are considered acceptable payback service for prior postdoctoral support. For example, postdoctoral trainees who continue under that award for two years have fulfilled the obligation incurred during the first 12 months of support by the end of the second year.
- Service payback obligations can also be paid back after termination of Kirschstein-NRSA support by conducting health-related research or teaching averaging more than 20 hours per week of a full work year. Payback service may be conducted in an academic, governmental, commercial, or nonacademic environment, in the United States or in a foreign country. Examples of acceptable payback service include research associateships/assistantships, postdoctoral research fellowships, and college or high school science teaching positions. Examples of unacceptable payback service include clinical practice and administrative responsibilities not directly related to scientific research.
- Recipients with service obligations must begin to provide acceptable payback service on a continuous basis within two years of termination of Kirschstein-NRSA support. The period for undertaking payback service may be delayed for such reasons as temporary disability, completion of residency requirements, or completion of the requirements for a graduate degree. Requests for an extension must be made in writing to the NIH specifying the need for additional time and the length of the required extension.
- Recipients of Kirschstein-NRSA support are responsible for informing the NIH of changes in status or address.
- For individuals who fail to fulfill their obligation through service, the United States is entitled to recover the total amount of Kirschstein-NRSA funds paid to the individual for the obligated period plus interest at a rate determined by the Secretary of the Treasury. Financial payback must be completed within three years beginning on the date the United States becomes entitled to recover such amount.
- Under certain conditions, the Secretary, DHHS (or those delegated this authority), may extend the period for starting service or repayment, permit breaks in service, or in rare cases in which service or financial repayment would constitute

an extreme hardship, may waive or suspend the payback obligation of an individual. Detailed information on the accrual and repayment of the Kirschstein-NRSA service payback obligation and waivers is available at http://grants.nih.gov/grants/policy/nihgps_2003/NIHGPS_Part7.htm#_Toc54600131.

- Officials at the awardee institution have the responsibility of explaining the terms of the payback requirements to all prospective trainees before appointment to the training grant. Additionally, all trainees recruited into the training program must be provided with information related to the career options that might be available when they complete the program. The suitability of such career options as methods to satisfy the NRSA service payback obligation must be discussed.

Inventions and Publications:

Traineeships made primarily for educational purposes are exempted from the PHS invention requirements and thus invention reporting is not required for institutional training grants.

Copyrights:

Except as otherwise provided in the terms and conditions of the award, the recipient is free to arrange for copyright without approval when publications, data, or other copyrightable works are developed in the course of work under a PHS grant-supported project or activity. Any such copyrighted or copyrightable works shall be subject to a royalty-free, nonexclusive, and irrevocable license to the Government to reproduce, publish, or otherwise use them, and to authorize others to do so for Federal Government purposes.

Final Reports:

A final Progress Report and Financial Status Report are required at the end of the grant project period or upon relinquishment of an award.

Human Embryonic Stem Cells (hESC):

Only approved hESC lines listed on the NIH Human Embryonic Stem Cell Registry http://stemcells.nih.gov/registry/ may be used for research training activities. The abstract of the application must provide the registry identifying numbers of the HESC lines to be used.

Section VII. Agency Contacts

We encourage your inquiries concerning this funding opportunity and welcome the opportunity to answer questions from potential applicants. Inquiries may fall into three areas: scientific/research, peer review, and financial or grants management issues:

1. Scientific/Research Contacts:

Nancy L Desmond, Ph.D.
Division of Neuroscience and Basic Behavioral Science
National Institute of Mental Health
Room 7197, MSC 9645
6001 Executive Blvd.
Bethesda, MD 20892-9645
Telephone: (301) 443-3563
FAX: (301) 443-1731
Email: ndesmond@nih.gov

2. Peer Review Contacts:

Jean G. Noronha, Ph.D.
Division of Extramural Activities
National Institute of Mental Health
Room 6147, MSC 9609
6001 Executive Blvd.
Bethesda, MD 20892-9609 (Rockville, MD 20852 for express/courier service)

Telephone: (301) 443-3367
FAX: (301) 443-4720
Email: jnoronha@mail.nih.gov

3. Financial or Grants Management Contacts:

Rebecca D. Claycamp, CRA
Division of Extramural Activities
National Institute of Mental Health
Room 6122, MSC 9605
6001 Executive Blvd.
Bethesda, MD 20892-9605
Telephone: (301) 443-2811
FAX: (301) 443-6885
Email: rc253d@nih.gov

Section VIII. Other Information

Required Federal Citations

Use of Animals in Research:
Recipients of PHS support for activated involving live, vertebrate animals must comply with PHS Policy on Humane Care and Use of Laboratory Animals (http://grants.nih.gov/grants/olaw/references/PHSPolicyLabAnimals.pdf), as mandated by the Health Research Extension Act of 1985 (http://grants.nih.gov/grants/olaw/references/hrea1985.htm), and the USDA Animal Welfare Regulations (http://www.nal.usda.gov/awic/legislat/usdaleg1.htm), as applicable.

Human Subjects Protection:
Federal regulations (45CFR46) require that applications and proposals involving human subjects must be evaluated with reference to the risks to the subjects, the adequacy of protection against these risks, the potential benefits of the research to the subjects and others, and the importance of the knowledge gained or to be gained.
http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.htm.

Sharing of Model Organisms:
NIH is committed to support efforts that encourage sharing of important research resources including the sharing of model organisms for biomedical research (see http://grants1.nih.gov/grants/guide/notice-files/NOT-OD-04-042.html). At the same time the NIH recognizes the rights of grantees and contractors to elect and retain title to subject inventions developed with Federal funding pursuant to the Bayh Dole Act (see the NIH Grants Policy Statement http://grants.nih.gov/grants/policy/nihgps_2003/index.htm). All investigators submitting an NIH application or contract proposal beginning with the October 1, 2004 receipt date, are expected to include in the application/proposal a description of a specific plan for sharing and distributing unique model organism research resources generated using NIH funding or state why such sharing is restricted or not possible. This will permit other researchers to benefit from the resources developed with public funding. The inclusion of a model organism sharing plan is not subject to a cost threshold in any year and is expected to be included in all applications where the development of model organisms is anticipated.

Inclusion of Women And Minorities in Clinical Research:
It is the policy of the NIH that women and members of minority groups and their sub-populations must be included in all NIH-supported clinical research projects unless a clear and compelling justification is provided indicating that inclusion is inappropriate with respect to the health of the subjects or the purpose of the research. This policy results from the NIH Revitalization Act of 1993 (Section 492B of Public Law 103-43). All investigators proposing clinical research should read the "NIH Guidelines for Inclusion of Women and Minorities as Subjects in Clinical Research (http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-001.html); a complete copy of the updated Guidelines is available at http://grants.nih.gov/grants/funding/women_min/guidelines_amended_10_2001.htm. The amended policy incorporates: the use of an NIH definition of clinical research; updated racial and ethnic categories in compliance with the new OMB standards; clarification of language governing NIH-defined Phase III clinical trials consistent with the new PHS Form 398; and updated roles and responsibilities of NIH staff and the extramural community. The policy continues to require for all NIH-defined Phase III clinical trials that: a) all applications or proposals and/or protocols must provide a description of plans to conduct analyses, as appropriate, to address differences by sex/gender and/or racial/ethnic groups, including subgroups if applicable; and b) investigators must report annual accrual and progress in conducting analyses, as appropriate, by sex/gender and/or racial/ethnic group differences.

Inclusion of Children as Participants in Clinical Research:
The NIH maintains a policy that children (i.e., individuals under the age of 21) must be included in all clinical research, conducted or supported by the NIH, unless there are scientific and ethical reasons not to include them.

All investigators proposing research involving human subjects should read the "NIH Policy and Guidelines" on the inclusion of children as participants in research involving human subjects that is available at http://grants.nih.gov/grants/funding/children/children.htm.

Required Education on The Protection of Human Subject Participants:
NIH policy requires education on the protection of human subject participants for all investigators submitting NIH applications for research involving human subjects and individuals designated as key personnel. The policy is available at http://grants.nih.gov/grants/guide/notice-files/NOT-OD-00-039.html.

Human Embryonic Stem Cells (hESC):
Criteria for federal funding of research on hESCs can be found at http://stemcells.nih.gov/index.asp and at http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-005.html. Only research using hESC lines that are registered in the NIH Human Embryonic Stem Cell Registry will be eligible for Federal funding (see http://escr.nih.gov/) It is the responsibility of the applicant to provide in the project description and elsewhere in the application as appropriate, the official NIH identifier(s) for the hESC line(s)to be used in the proposed research. Applications that do not provide this information will be returned without review.

Public Access to Research Data through the Freedom of Information Act:
The Office of Management and Budget (OMB) Circular A-110 has been revised to provide public access to research data through the Freedom of Information Act (FOIA) under some circumstances. Data that are (1) first produced in a project that is supported in whole or in part with Federal funds and (2) cited publicly and officially by a Federal agency in support of an action that has the force and effect of law (i.e., a regulation) may be accessed through FOIA. It is important for applicants to understand the basic scope of this amendment. NIH has provided guidance at http://grants.nih.gov/grants/policy/a110/a110_guidance_dec1999.htm. Applicants may wish to place data collected under this PA in a public archive, which can provide protections for the data and manage the distribution for an indefinite period of time. If so, the application should include a description of the archiving plan in the study design and include information about this in the budget justification section of the application. In addition, applicants should think about how to structure informed consent statements and other human subjects procedures given the potential for wider use of data collected under this award.

Standards for Privacy of Individually Identifiable Health Information:
The Department of Health and Human Services (DHHS) issued final modification to the ?Standards for Privacy of Individually Identifiable Health Information,? the ?Privacy Rule,? on August 24, 2002. The Privacy Rule is a federal regulation under the Health Insurance Portability and Accountability Act (HIPAA) of 1996 that governs the protection of individually identifiable health information, and is administered and enforced by the DHHS Office for Civil Rights (OCR).

Decisions about the applicability and implementation of the Privacy Rule reside with the researcher and his/her institution. The OCR web site (http://www.hhs.gov/ocr/) provides information on the Privacy Rule, including a complete Regulation Text and a set of decision tools on ?Am I a covered entity?? Information on the impact of the HIPAA Privacy Rule on NIH processes involving the review, funding, and progress monitoring of grants, cooperative agreements, and research contracts may be found at: http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03-025.html.

URLs in NIH Grant Applications or Appendices:
All applications and proposals for NIH funding must be self-contained within specified page limitations. Unless otherwise specified in an NIH solicitation, Internet addresses (URLs) should not be used to provide information necessary to the review because reviewers are under no obligation to view the Internet sites. Furthermore, we caution reviewers that their anonymity may be compromised when they directly access an Internet site.

Healthy People 2010:
The Public Health Service (PHS) is committed to achieving the health promotion and disease prevention objectives of "Healthy People 2010," a PHS-led national activity for setting priority areas. This PA is related to one or more of the priority areas. Potential applicants may obtain a copy of "Healthy People 2010" at http://www.health.gov/healthypeople.

Authority and Regulations:
This program is described in the Catalog of Federal Domestic Assistance at http://www.cfda.gov/ and is not subject to the intergovernmental review requirements of Executive Order 12372 or Health Systems Agency review. Awards are made under the authorization of Section 487 of the Public Health Service Act as amended (42 USC 288) and under Federal Regulations 42 CFR 66. All awards are subject to the terms and conditions, cost principles, and other considerations described in the NIH Grants Policy Statement. The NIH Grants Policy Statement can be found at http://grants.nih.gov/grants/policy/policy.htm.

The PHS strongly encourages all grant recipients to provide a smoke-free workplace and discourage the use of all tobacco products. In addition, Public Law 103-227, the Pro-Children Act of 1994, prohibits smoking in certain facilities (or in some cases, any portion of a facility) in which regular or routine education, library, day care, health care, or early childhood development services are provided to children. This is consistent with the PHS mission to protect and advance the physical and mental health of the American people.

Loan Repayment Program (LRP):
NIH encourages applications for educational loan repayment from qualified health professionals who have made a commitment to pursue a research career involving clinical, pediatric, contraception, infertility, and health disparities-related areas. The LRP is an important component of NIH's efforts to recruit and retain the next generation of researchers by providing the means for developing a research career unfettered by the burden of student loan debt. Note that an NIH grant is not required for eligibility and that concurrent career award and LRP applications are encouraged. The periods of career award and LRP award may overlap providing the LRP recipient with the required commitment of time and effort because LRP awardees must commit at least 50% of their time (at least 20 hours per week based on 40-hour week) for two years to the research. For further information, please see: http://www.lrp.nih.gov.

Weekly TOC for this Announcement
NIH Funding Opportunities and Notices

Department of Health
and Human Services

National Institutes of Health (NIH)
9000 Rockville Pike
Bethesda, Maryland 20892